

# AIRNow-Tech

An interactive web-based data management and analysis tool supporting the AIRNow air quality notification and forecasting system



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# Outline

- About AIRNow
- AIRNow-Tech
  - About
  - Features
  - Demonstration
    - Performing data queries
    - Site and monitor management
    - Navigator GIS
    - Customizable preferences and tools in *My Account*
- Resources and how to obtain an AIRNow-Tech account
- Questions, comments, and discussion

# About AIRNow

## Centralized national air quality network

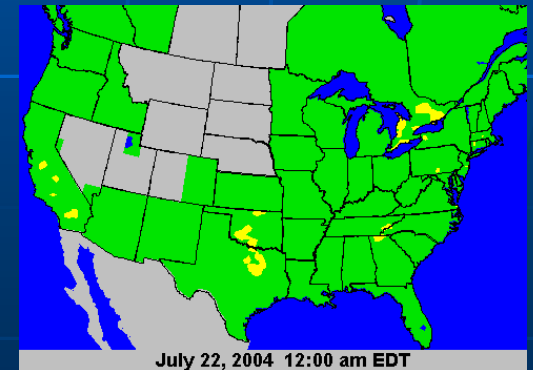
- Launched in 1998
- Provides a common framework for acquiring and distributing air quality information

## Diverse stakeholder community

- Federal, state, provincial, tribal, and local air agencies
- Scientific and health research organizations
- Media and public outreach groups

## Products

- Real-time data maps and observations
- Forecasts
- Educational information and news stories



# About AIRNow-Tech

- Interactive web-based data management and analysis tool
- Password protected
- Individual user accounts
- Submit and view data
- Data management functions, personalized tools, preferences, and services

The screenshot displays the AIRNow-Tech website with a blue header and navigation menu. The main content area is divided into several sections:

- Home** (Welcome, AIRNow Tech User! | [My Account](#) | [Sign Out](#))
- Home** | **Agencies** | **Sites** | **Navigator** | **Data** | **Forecasts** | **Polling** | **Notifier** | **Resources**
- News and Events**
  - 2007 National Air Quality Conference - Call for Speakers and Posters**

The 2007 National Air Quality Conference, sponsored by the EPA, the State and Territorial Air Pollution Program Administrators, and the Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), will be held February 11-14 in Orlando, Florida. Please visit the following website for more information on how you can be a part of the conference!

LINK: <http://www.epa.gov/airnow/2007conference/call-speakers2.html>

Posted October 4, 2006, 10:37 (PT)
  - Did you know? Tip 2**

How can I tell if a monitor is reporting suspect data?

When an observation (OBS) file is received from an agency, each hourly measurement is compared against a set of QC criteria. These criteria help identify potentially erroneous measurements.

Measurements violating one or more QC criteria are flagged and then reviewed by an AIRNow operator, after which data is either validated or invalidated. Invalidated data are marked as erroneous in the AIRNow database and are assigned a value of -990. These measurements are neither used to calculate the AQI nor used to produce AIRNow maps or related information. In effect, the public is prevented from viewing what would otherwise be an incorrect indication of real-time air quality.

How can you tell if a monitor has reported data violating QC criteria? Sign up for and view the "Agency Daily" email. You can sign-up by visiting the My Account page in AIRNow-Tech. Questions? Please email the AIRNow DMC at [airnowdmc@sonomatech.com](mailto:airnowdmc@sonomatech.com).

Posted October 18, 2006, 12:25 (PT)
- My Agency's Forecasts**

Issue Date: 10/20/2006

City	Today	Tomorrow	Action Day
Atlanta	PM2.5	PM2.5	
- My Agency's Realtime Observed**

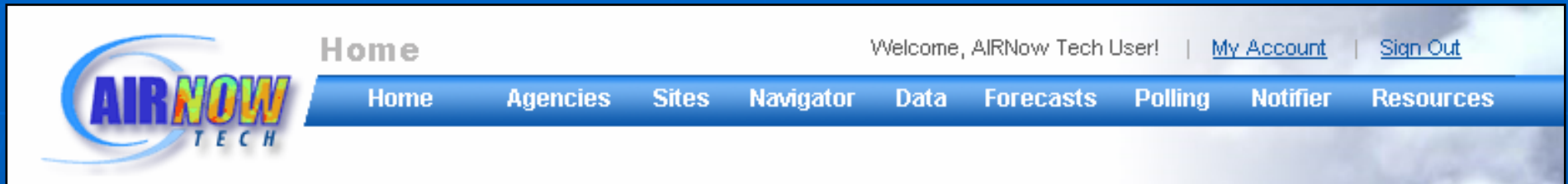
	Ozone	PM2.5	PM10
Yesterday	36	86	47
Max Today	30	74	45
Current	30	21	45
- My Agency's Polling Summary**

Agency	Ozone	PM2.5	PM10
GA1	10/20 16:00	10/20 16:00	10/20 15:00
- Polling Summary**

October 20, 2006 17:43 (ET) (All times are in ET)

Agency	Ozone	PM2.5	PM10
AB1	10/20 16:00	10/20 16:00	10/20 16:00
AC1			
AIR			
AL1	10/20 16:00		
AL2	10/20 16:00	10/20 16:00	10/20 16:00
AL3	10/20 16:00	10/20 16:00	
AL4	10/20 16:00	10/20 16:00	
AR1	10/20 16:00	10/20 16:00	
AZ1		10/20 16:00	
AZ2	10/20 16:00	10/20 16:00	10/20 16:00

# AIRNow-Tech Features



- **Home** – Relevant news, events, and snapshot of agency status
- **Agencies** – Status of monitor data delivery by agency and parameter
- **Sites** – Monitor information, configuration, & status by site
- **Navigator (GIS)** – Monitor maps, current & historical air quality & meteorological data display, HYSPLIT trajectory tool, numerous supporting GIS layers
- **Data** – Hourly, daily, & historical monitoring data queries
- **Forecasts** – Forecast submittal, configuration, analysis tools, and configuration
- **Polling** – Summaries on data delivery times & completeness
- **Notifier** – AIRNow program e-mail list-serve
- **Resources** – General information for AIRNow program & the Data Management Center (DMC)
- **My Account** – Account management, customizable preferences, and tools

# AIRNow-Tech Demonstrations

- Performing data queries
- Site and monitor management
- Navigator GIS
- Customizable preferences and tools in *My Account*

# Performing data queries

**AIRNOW TECH**

Pre-defined Queries

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### Select Monitoring Sites

Agency:  Map Domain: ☐

Parameter:  County: ☐

EPA Region:  MSA: ☐

State:

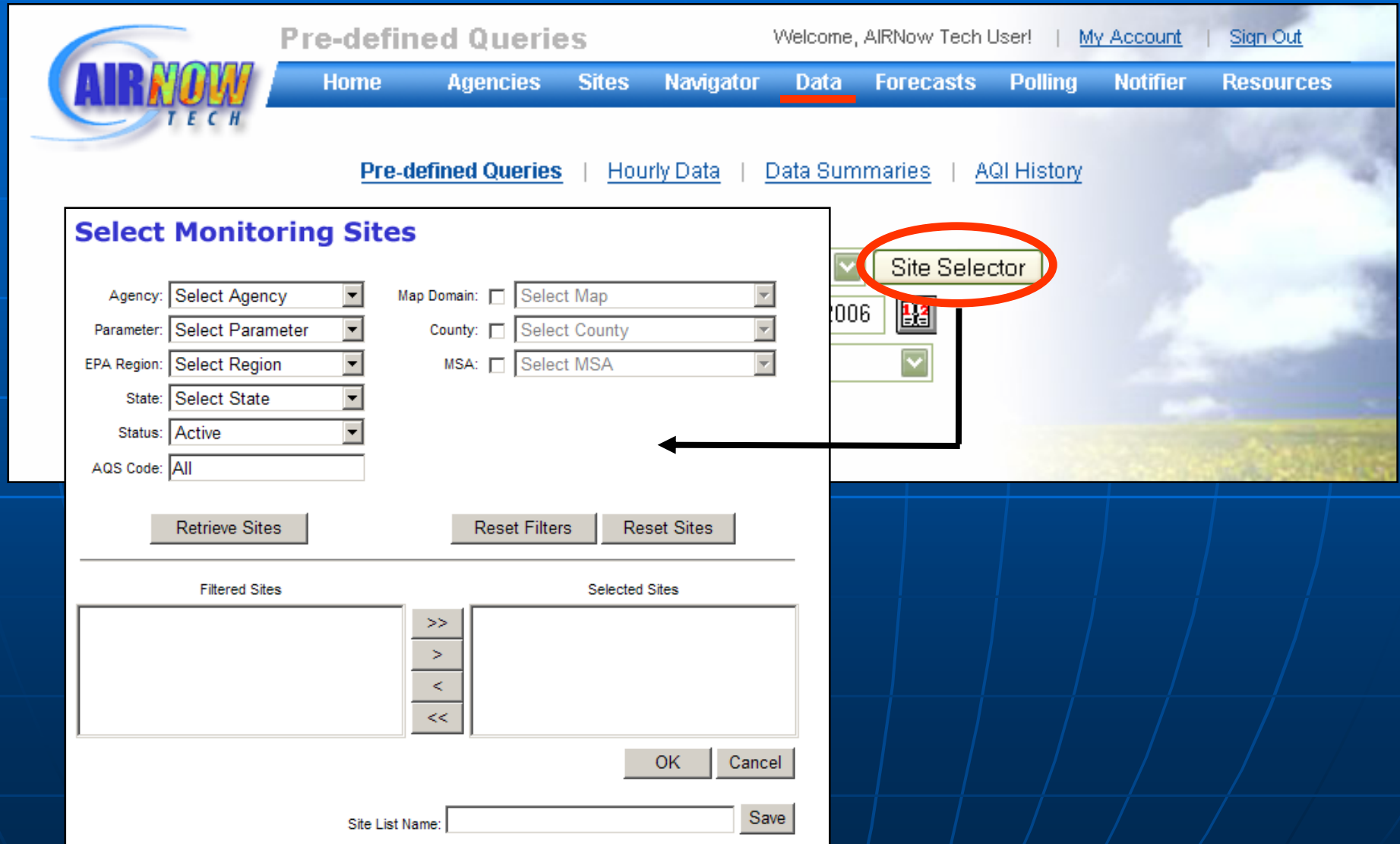
Status:

AQS Code:

Filtered Sites

Site List Name:

**Site Selector**



# Performing data queries

## Select Monitoring Sites

Agency:  Map Domain: ☐

Parameter:

EPA Region:

State:

Status:

AQS Code:

Site List Name:



# Performing data queries

## Select Monitoring Sites

Agency:	AR1 - Arkansas Dept	Map Domain:	<input type="checkbox"/> Select Map
Parameter:	Select Parameter	County:	<input type="checkbox"/> Select County
EPA Region:	Select Region	MSA:	<input type="checkbox"/> Select MSA
State:	Select State		
Status:	Active		
AQS Code:	All		

Retrieve Sites

Reset Filters

Reset Sites

Filtered Sites

Selected Sites

	>>	
	>	
	<	
	<<	

OK

Cancel

Site List Name:

Save

# Performing data queries

## Select Monitoring Sites

Agency:	AR1 - Arkansas Dept	Map Domain:	<input type="checkbox"/> Select Map
Parameter:	Select Parameter	County:	<input type="checkbox"/> Select County
EPA Region:	Select Region	MSA:	<input type="checkbox"/> Select MSA
State:	Select State		
Status:	Active		
AQS Code:	All		

Retrieve Sites

Reset Filters

Reset Sites

Filtered Sites

050350005 - MARION  
050350006 - Clarkdale  
050350007 - Earle  
050970001 - ODEN  
051010002 - DEER  
051130003 - EAGLEMT

>>

<

<<

Selected Sites

OK

Cancel

Site List Name:

Save

# Performing data queries

## Select Monitoring Sites

Agency:	AR1 - Arkansas Dept	Map Domain:	<input type="checkbox"/> Select Map
Parameter:	Select Parameter	County:	<input type="checkbox"/> Select County
EPA Region:	Select Region	MSA:	<input type="checkbox"/> Select MSA
State:	Select State		
Status:	Active		
AQS Code:	All		

Retrieve Sites

Reset Filters

Reset Sites

Filtered Sites

Selected Sites

	>>	050350005 - MARION
	>	050350006 - Clarkdale
	<	050350007 - Earle
	<<	050970001 - ODEN
		051010002 - DEER
		051130003 - EAGLEMT

OK

Cancel

Site List Name:

Save

# Performing data queries

## Select Monitoring Sites

Agency:	AR1 - Arkansas Dept	Map Domain:	<input type="checkbox"/> Select Map
Parameter:	Select Parameter	County:	<input type="checkbox"/> Select County
EPA Region:	Select Region	MSA:	<input type="checkbox"/> Select MSA
State:	Select State		
Status:	Active		
AQS Code:	All		

Retrieve Sites

Reset Filters

Reset Sites

Filtered Sites

Selected Sites

	>>	050350005 - MARION
	>	050350006 - Clarkdale
	<	050350007 - Earle
	<<	050970001 - ODEN
		051010002 - DEER
		051130003 - EAGLEMT

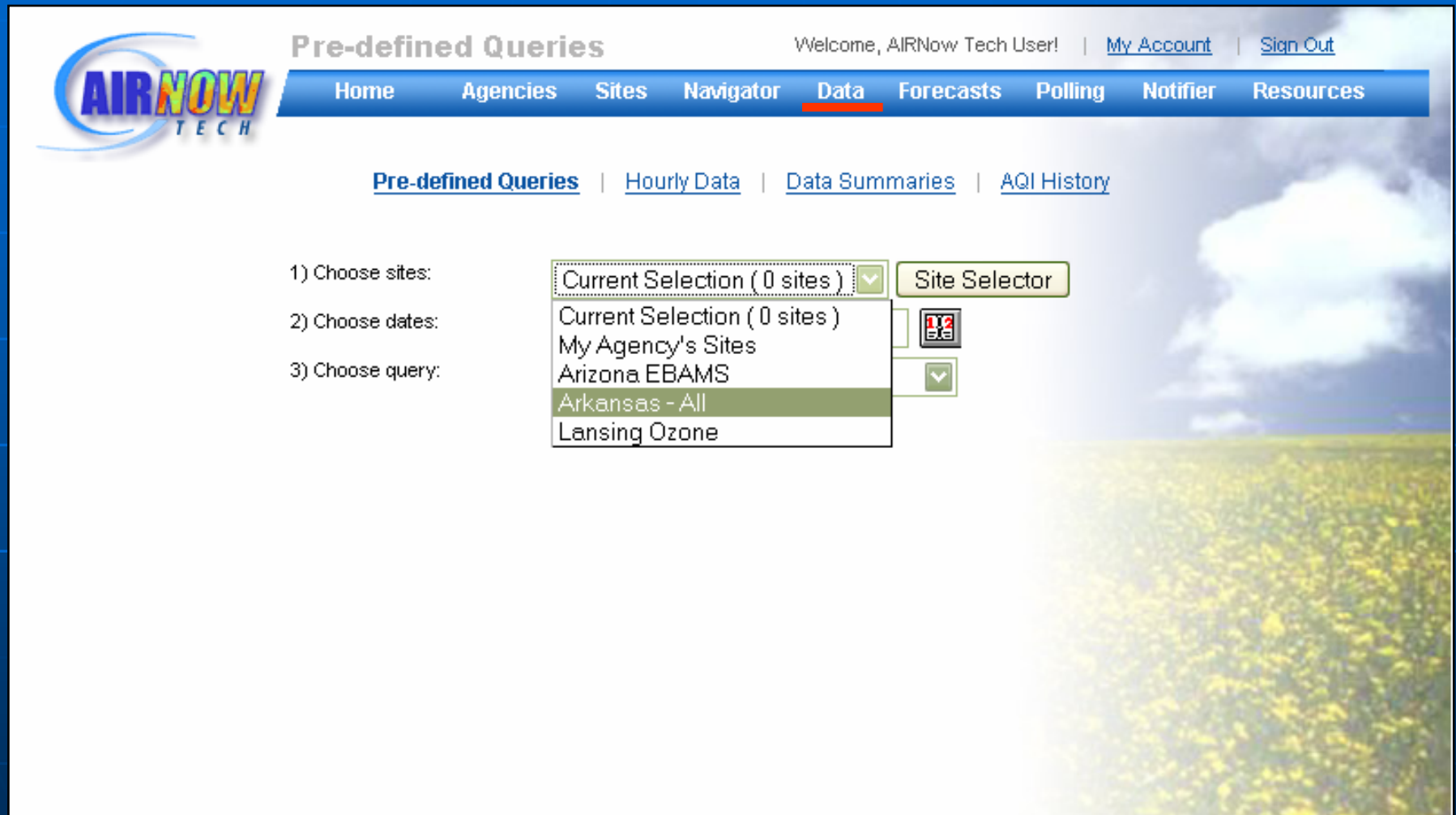
OK

Cancel

Site List Name: Arkansas - All

Save

# Performing data queries



**AIRNOW TECH**

**Pre-defined Queries**

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1) Choose sites:

2) Choose dates:

3) Choose query:

# Performing data queries





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1) Choose sites:

Arkansas - All  

2) Choose dates:

10/23/2006  to 10/24/2006 

3) Choose query:

Choose a query 

Choose a query

Hourly Ozone (PPB)

Hourly PM2.5 (ug/m3)

Daily Max 1-hour Ozone (PPB)

Daily Max 8-hour Ozone (PPB)

Daily Max 8-hour Ozone (AQI)

Daily Max 24-hour PM2.5 (ug/m3)

Daily Max 24-hour PM2.5 (AQI)

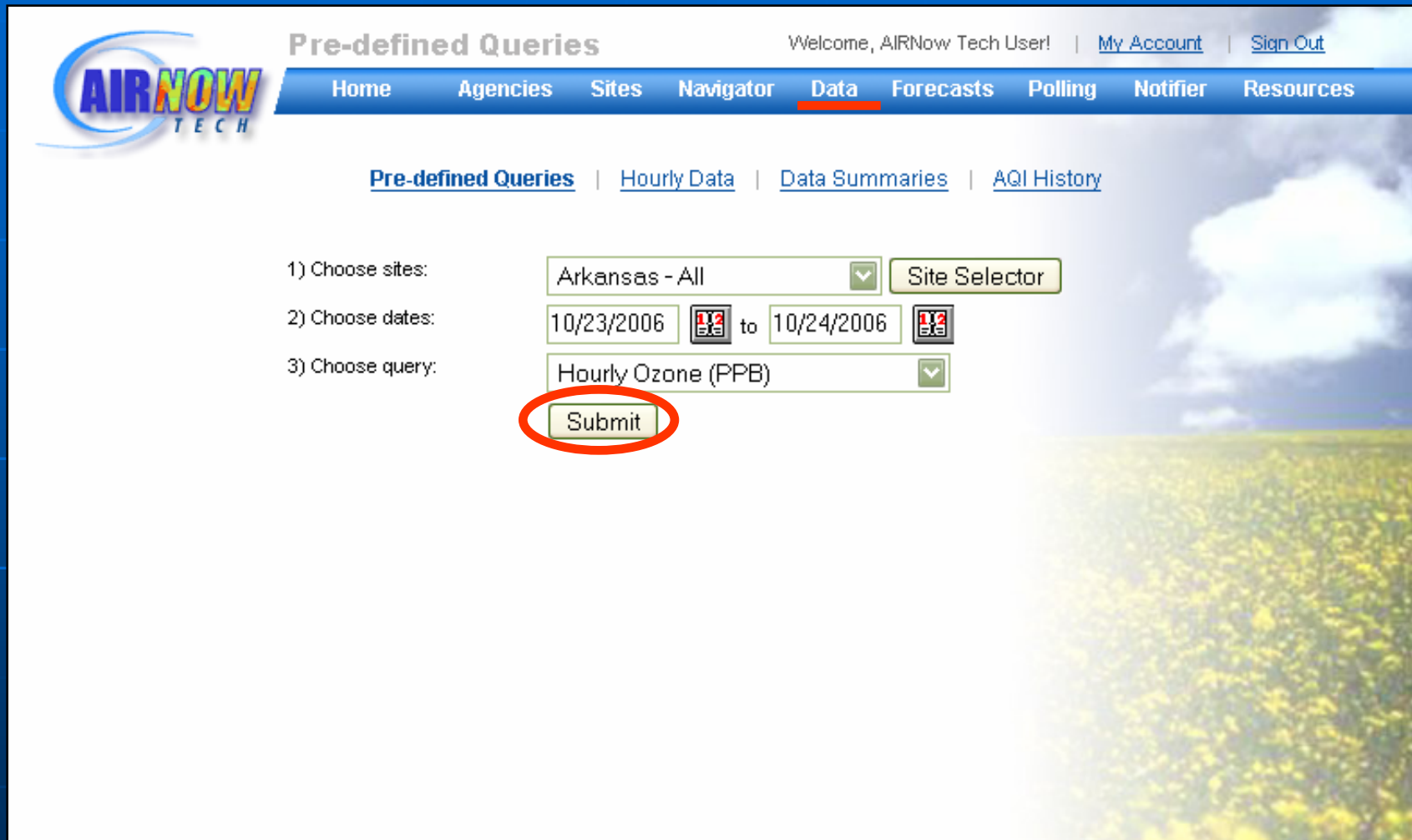
Daily Max 24-hour PM10 (ug/m3)

Daily Max 24-hour PM10 (AQI)

Ozone: Days Above 100 AQI

PM2.5: Days Above 100 AQI

# Performing data queries



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1) Choose sites:

2) Choose dates:   to

3) Choose query:

# Performing data queries



## Pre-defined Queries

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[AQI History](#)

1) Choose sites:

Arkansas - All



Site Selector

2) Choose dates:

10/23/2006



to

10/24/2006



3) Choose query:

Hourly Ozone (PPB)



Submit

12 Records Returned - 6/11 sites contain data

Export Results to CSV

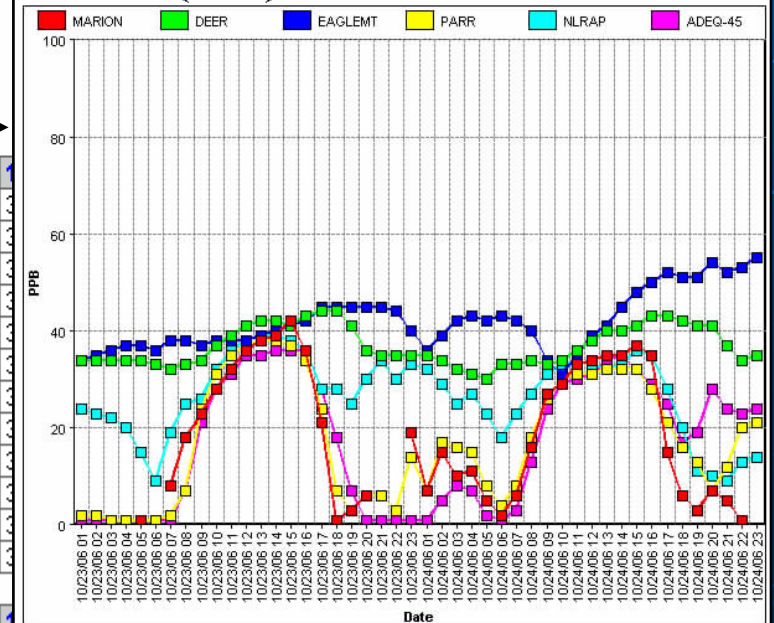
Graph (Flash)

Graph (jpg)

Agency	Site Name	AQS Code	Date	Hour (LST)											
				0	1	2	3	4	5	6	7	8	9	10	11
AR1	DEER	051010002	10/23/2006	-980	34	34	34	34	34	33	32	33	34	37	3
AR1	PARR	051190007	10/23/2006	-980	2	2	1	1	1	1	2	7	24	31	3
AR1	NLRAP	051191002	10/23/2006	-980	24	23	22	20	15	9	19	25	26	32	3
AR1	MARION	050350005	10/23/2006	-980	0	0	0	0	1	0	8	18	23	28	3
AR1	ADEQ-45	051191005	10/23/2006	-980	1	1	1	1	1	1	1	7	21	28	3
AR1	EAGLEMT	051130003	10/23/2006	-980	34	35	36	37	37	36	38	38	37	38	3
AR1	DEER	051010002	10/24/2006	-980	35	34	32	31	30	33	33	34	33	34	3
AR1	PARR	051190007	10/24/2006	-980	7	17	16	15	8	4	8	18	26	30	3
AR1	NLRAP	051191002	10/24/2006	-980	32	29	25	27	23	18	23	27	31	33	3
AR1	MARION	050350005	10/24/2006	-980	7	15	10	11	5	2	6	16	27	29	3
AR1	ADEQ-45	051191005	10/24/2006	-980	1	5	8	7	2	1	3	13	24	29	3
AR1	EAGLEMT	051130003	10/24/2006	-980	36	39	42	43	42	43	42	40	34	31	3

Hour	0	1	2	3	4	5	6	7	8	9	10	11
Column Maximum	-999	36	39	42	43	42	43	42	40	37	38	39

## OZONE (PPB): 10/23/2006 to 10/24/2006





# Performing data queries

Access to all parameters

Useful for analyzing diurnal trends and daily averages

Sorting and row/column summaries available

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1) Choose site(s): Current Selection ( 11 sites ) Site Selector

2) Choose parameter: OZONE

3) Choose date(s): 10/23/2006 to 10/24/2006

4) Sort by: ☐ Site Name ☒ Date ☐ AQS Code ☐ Agency

5) Row summaries: ☒ Maximum ☐ Average ☐ Count

6) Column summaries: ☒

Submit

# Performing data queries

Access to all parameters

Useful for daily maximum values and counts of specific values or AQI categories over a few weeks or months

Sorting and row/column summaries available

**AIRNOW TECH**

**Data Summaries**

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[Pre-defined Queries](#) | [Hourly Data](#) | [Data Summaries](#) | [AQI History](#)

1) Choose site(s):

2) Choose parameter:

3) Choose date(s):   to

4) Choose metric:

☒ Maximum value displayed as: ☐ AQI Number ☐ AQI Category ☒ ppb or  $\mu\text{g}/\text{m}^3$

☐ Count of:  ☐ > ☐ =  ☐ <

☐ Count of AQI: ☐ Good ☐ Moderate ☐ USG ☐ Unhealthy ☐ Very Unh.

5) Group By: ☒ Day ☐ Month ☐ Period

6) Row summaries: ☐ Maximum ☒ Average ☐ Count

7) Column summaries: ☐

# Performing data queries



## AQI History

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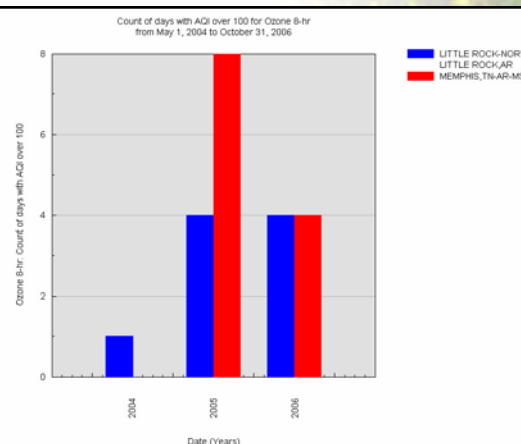
- 1) Choose site(s):
  - 2) Choose parameter:
  - 3) Choose date range:   to
  - 4) Choose metric:
  - 5) Group by:
  - 6) Aggregate by:
  - 7) Sort by:
- 

Graphs

Count of days with AQI over 100 for Ozone 8-hr  
from May 1, 2004 to October 31, 2006

MSA Name	Date	Value	Data Status
LITTLE ROCK-NORTH LITTLE ROCK,AR	2004	1	Final
LITTLE ROCK-NORTH LITTLE ROCK,AR	2005	4	Preliminary
LITTLE ROCK-NORTH LITTLE ROCK,AR	2006	4	Preliminary
MEMPHIS,TN-AR-MS	2005	8	Preliminary
MEMPHIS,TN-AR-MS	2006	4	Preliminary

Fetches 5 records from database in 0 seconds.



Data for 1993 to present

Enhanced data grouping and graphing

Useful for multi-year analysis

Limited to daily maximum 1-hr and 8-hr ozone averages

# Site and monitor management

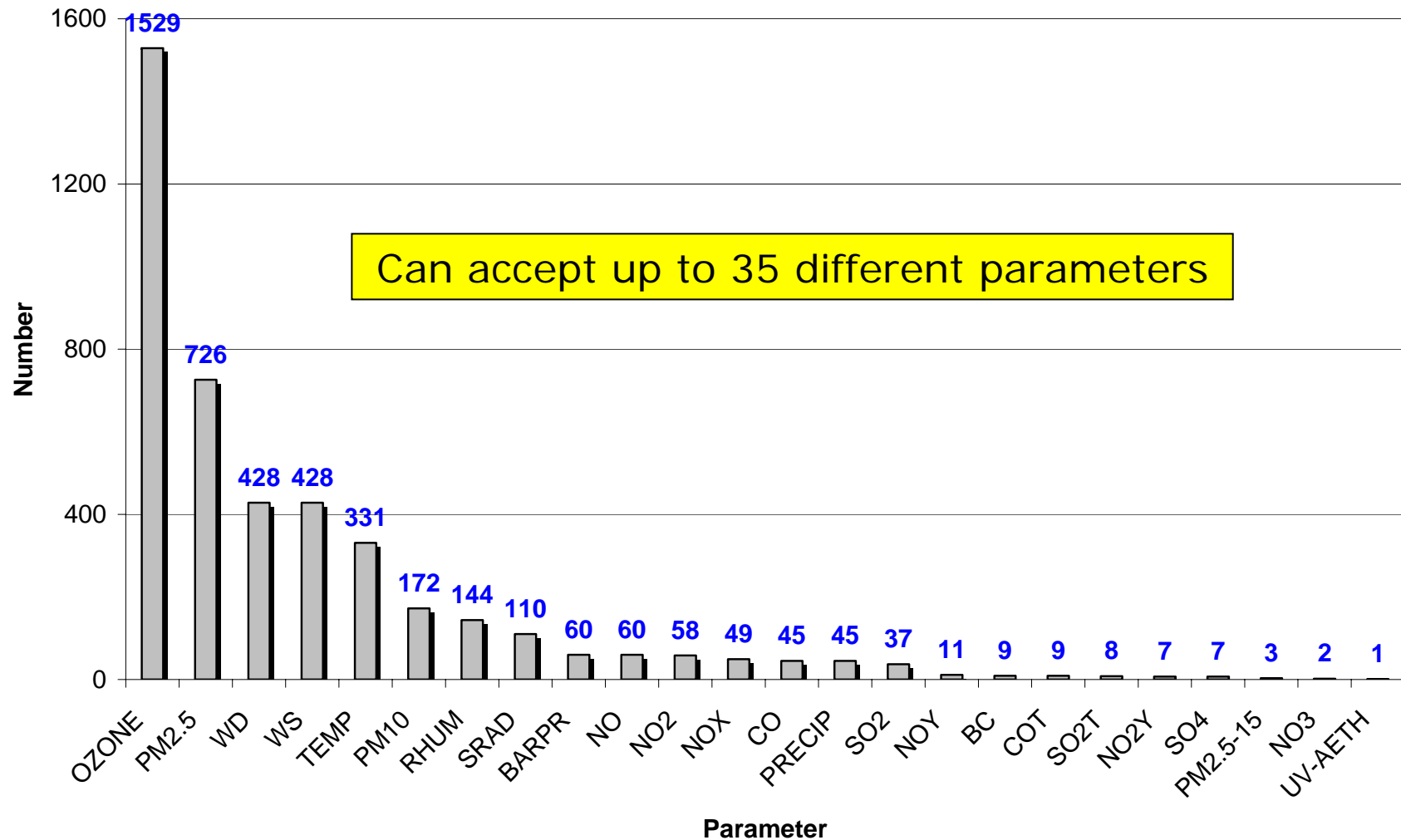
- Data delivered via AIRNow OBS file, specially formatted ASCII text
- Received hourly via ftp process
- Specify both air quality and meteorological parameters

```
1 BEGIN_FILE
2 FORMAT_VERSION,2
3 AGENCY,FL1
4 FILENAME,102316.FL1
5 DATA_VERSION,200610231612
6 TZONE,EST,5
7 BEGIN_GROUP
8 VARIABLE,OZONE
9 DATA_TYPE,POINT
10 MEASUREMENT_TYPE,SAMPLE
11 CHARACTERISTIC,OBSERVED
12 START_DTG,200610220000
13 END_DTG,200610222359
14 INTERVAL,60
15 START_REF,0
16 NUMSTEPS,24
17 AVG_TIME,60
18 UNITS,PPB
19 STATIONS,44
20 BEGIN_DATA
21 WINEGARD ,120950008,27,21,11,8,8,5,3,13,22,28,33,3,
22 WINEGARD ,120950008, G, G, G,G,G,G,G, G, G, G, G,
23 WINPK ,120952002,32,28,25,21,13,17,16,15,21,29,
24 WINPK ,120952002, G, G, G, G, G, G, G, G, G, G,
25 JACKSON ,121152002,23,21,18,16,12,11,11,14,25,31,
26 JACKSON ,121152002, G, G, G, G, G, G, G, G, G, G,
27 LANTANA ,120990020,13,15,18,21,21,23,20,16,18,17,
28 LANTANA ,120990020, G, G, G, G, G, G, G, G, G, G,
29 LAURELOA ,120210004,18,16,8,4,3,4,4,7,19,29,31,32,
30 LAURELOA ,120210004, G, G,G,G,G,G,G,G, G, G, G, G,
31 PORTMANA ,120813002,9,9,15,12,9,8,6,8,18,27,37,39,
32 PORTMANA ,120813002,G,G, G, G,G,G,G,G, G, G, G, G,
33 BRAYPARK ,120814012,20,22,20,17,13,14,13,15,23,30,
34 BRAYPARK ,120814012, G, G, G, G, G, G, G, G, G, G,
35 39TH ST ,120814013,23,20,17,14,12,11,10,13,22,28,
```


# Site and monitor management

Number of Parameters Specified Across All Active Monitoring Sites in AIRNow

Date: 10/27/06



# Site and monitor management



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**Agencies »** [Arkansas Dept. of Environmental Quality](#) » [Sites](#)

[Show All Agencies](#)

**Color Legend**

- Green = Current
- Yellow = 2 to 6 hrs old
- Red = over 6 hrs old
- Grey = Unknown status
- Black = Needs Attention

[Parameter Reference](#)

ID	Agency	Active Sites	Ozone	PM <sub>2.5</sub>	CO	NO <sub>2</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO	NO <sub>x</sub>	NO <sub>y</sub>	NO <sub>2_Y</sub>	NO <sub>2_T</sub>	NO <sub>3</sub>
AB1	<a href="#">Environment Canada - Alberta</a>	<a href="#">27</a>												
AC1	<a href="#">Alabama-Coushatta Tribe of Texas</a>	<a href="#">1</a>												
AIR	<a href="#">AIRSIS</a>	<a href="#">7</a>												
AL1	<a href="#">Alabama Department of Environmental Management</a>	<a href="#">16</a>												
AL2	<a href="#">Jefferson County Department of Health</a>	<a href="#">10</a>												
AL3	<a href="#">Tennessee Valley Authority RSOE</a>	<a href="#">5</a>												
AL4	<a href="#">Huntsville Natural Resources and Environmental Management</a>	<a href="#">1</a>												
AR	<a href="#">Arkansas Dept. of Environmental Quality</a>	<a href="#">11</a>												
AZ1	<a href="#">Arizona Department of Environmental Quality</a>	<a href="#">3</a>												
AZ2	<a href="#">Maricopa County Air Quality Department</a>	<a href="#">22</a>												
AZ3	<a href="#">Pima County Department of Environmental Quality</a>	<a href="#">10</a>												
BC1	<a href="#">British Columbia Ministry of Water, Land and Air Protection</a>	<a href="#">52</a>												
BC2	<a href="#">Greater Vancouver Regional District</a>	<a href="#">7</a>												
CA0	<a href="#">Imperial County Air Pollution Control District</a>	<a href="#">5</a>												
CA1	<a href="#">Sacramento Metro. AQMD</a>	<a href="#">11</a>												

Current agency delivery status is shown with color-coded boxes

# Site and monitor management



## Site Management

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### Color Legend

Green = Current  
 Red = Over 6 Hrs Old  
 Black = Needs Information  
 Yellow = 2 to 6 Hrs Old  
 Grey = Unknown Status  
 ✓ = Approved for Public


[Parameter Reference](#)

Site #	Site Name	Status	Ozone	PM <sub>2.5</sub>	CO	NO <sub>2</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO	NO <sub>x</sub>	NO <sub>y</sub>	NO <sub>2</sub> _Y	NO <sub>2</sub> _T	NO <sub>3</sub>	SO <sub>4</sub>	SO <sub>2</sub> _T	CO <sub>T</sub>	EC	OC	BC	UV-AETH	Temp.	WS	WD
051191005	<a href="#">ADEQ-45</a>	Active	✓	✓																				
050350006	<a href="#">Clarkdale</a>	Active	✓																					
051010002	<a href="#">DEER</a>	Active	✓																					
051130003	<a href="#">EAGLEMT</a>	Active	✓																					
050350007	<a href="#">Earle</a>	Active	✓																					
051390006	<a href="#">El Dorado</a>	Active		✓																				
051430004	<a href="#">FAYETTEVILLE</a>	Active		✓																				
050350005	<a href="#">MARION</a>	Active	✓	✓																				
051191002	<a href="#">NLRAP</a>	Active	✓																					
050970001	<a href="#">ODEN</a>	Active	✓																					
051190007	<a href="#">PARR</a>	Active	✓																					

Current  
parameter  
delivery status  
is shown with  
color-coded  
boxes



# Site and monitor management




## Site Management

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[Agencies](#) » [Site List](#) » [Edit Sites](#)

**AQS Code\***:  

**Site ID\***:

**Site Name\***:

**Agency ID**:

**State**:

**County**:

**MSA**:

**GMT Offset\***:

**Status\***:

**Geo Type**:

**Elevation**:  ft. or  m.

**Latitude\***:    or

**Longitude\***:    or

**Address**:

**Pollutants Measured:**

[OZONE](#)

[PM2.5](#)

Begin editing information by selecting the "Enable Editing" tab.

Enable Editing View QC Criteria


\*Required

Easily toggle through your agencies sites by utilizing the drop down menu.

Site status can be set to either *Active* or *Inactive*. Data from both *Active* and *Inactive* sites undergo QC and can be queried using AIRNow Tech. However, only data from *Active* sites are used to produce maps and other AQI reporting products.



# Site and monitor management



## Site Management

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[Home](#) [Agencies](#) [Sites](#) [Navigator](#) [Data](#) [Forecasts](#) [Polling](#) [Notifier](#) [Resources](#)


[Agencies](#) » [Site List](#) » [Edit Sites](#)

AQS Code*: <input type="text" value="050350005"/>	Status*: <input type="text" value="Active"/>
Site ID*: <input type="text" value="n/a"/>	Geo Type: <input type="text" value="Select Type"/>
Site Name*: <input type="text" value="MARION"/>	Elevation: <input type="text" value="0"/> ft. or <input type="text" value="0"/> m.
Agency ID: <input type="text" value="AR1"/>	DDDMM SS Dec Deg
State: <input type="text" value="AR"/>	Latitude*: <input type="text" value="35"/> <input type="text" value="11"/> <input type="text" value="48"/> or <input type="text" value="35.1967"/>
County: <input type="text" value="CRITTENDEN"/>	Longitude*: <input type="text" value="-90"/> <input type="text" value="11"/> <input type="text" value="28"/> or <input type="text" value="-90.1911"/>
MSA: <input type="text" value="MEMPHIS,TN-AR-MS"/>	Address: <input type="text" value="n/a"/>
GMT Offset*: <input type="text" value="6"/>	

\*Required

[Add New Site](#)  
**Pollutants Measured:**  
[OZONE](#)  
[PM2.5](#)  
**Add New Parameter**

# Site and monitor management



## Site Management

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- Home
- Agencies
- Sites
- Navigator
- Data
- Forecasts
- Polling
- Notifier
- Resources

[Agencies](#) » [Site List](#) » [Edit Sites](#)

AQS Code\*:

Site ID\*:

Site Name\*:

Agency ID:

State:

County:

MSA:

GMT Offset\*:

Status\*:

Geo Type:

Elevation:  ft. or  m.

DDDMM SS Dec Deg  
Latitude\*:    or

Longitude\*:    or

Address:

[Add New Site](#)  
**Pollutants Measured:**  
[OZONE](#)  
[PM2.5](#)  
**Add New Parameter**

\*Required

---

**Parameter Specification for [MARION](#)**  
[Site List](#) » [Edit Sites](#) [Back to Site Detail](#)

**OZONE (PPB)**

Are data approved for public reporting? ☒

Slope:


Intercept:

Add and edit information about a parameter measured at the site.

# Site and monitor management

Quality Control (QC) criteria are set by hour to help with automated QC processes. Data are flagged as bad or suspect when violating one of these criteria.

Parameter:

OZONE 

Buddy Sites


*No buddy sites selected.*

Quality Control Criteria

[QC Descriptions](#)

Hour (LST)	Max Suspect	Max Severe	Rate Of Change	# of Buddy Sites	Buddy Average	# of Sticking Hours	Sticking Value	Minimum Drift
0000	110	189	60	3	50	5	40	-5
0100	110	189	60	3	50	5	40	-5
0200	110	189	60	3	50	5	40	-5
0300	100	168	60	3	50	5	40	-5
0400	100	168	60	3	50	5	40	-5
0500	100	168	60	3	50	5	40	-5
0600	100	168	60	3	50	5	40	-5
0700	100	168	60	3	50	5	40	-5
0800	100	168	60	3	50	5	40	-5
0900	100	168	60	3	50	5	40	-5
1000	100	168	60	3	50	5	40	-5
1100	140	210	60	3	50	5	40	-5

# Navigator GIS





## Navigator



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[Home](#) [Agencies](#) [Sites](#) [Navigator](#) [Data](#) [Forecasts](#) [Polling](#) [Notifier](#) [Resources](#)




Tools | Tool Options | Site Info







 Data Mode

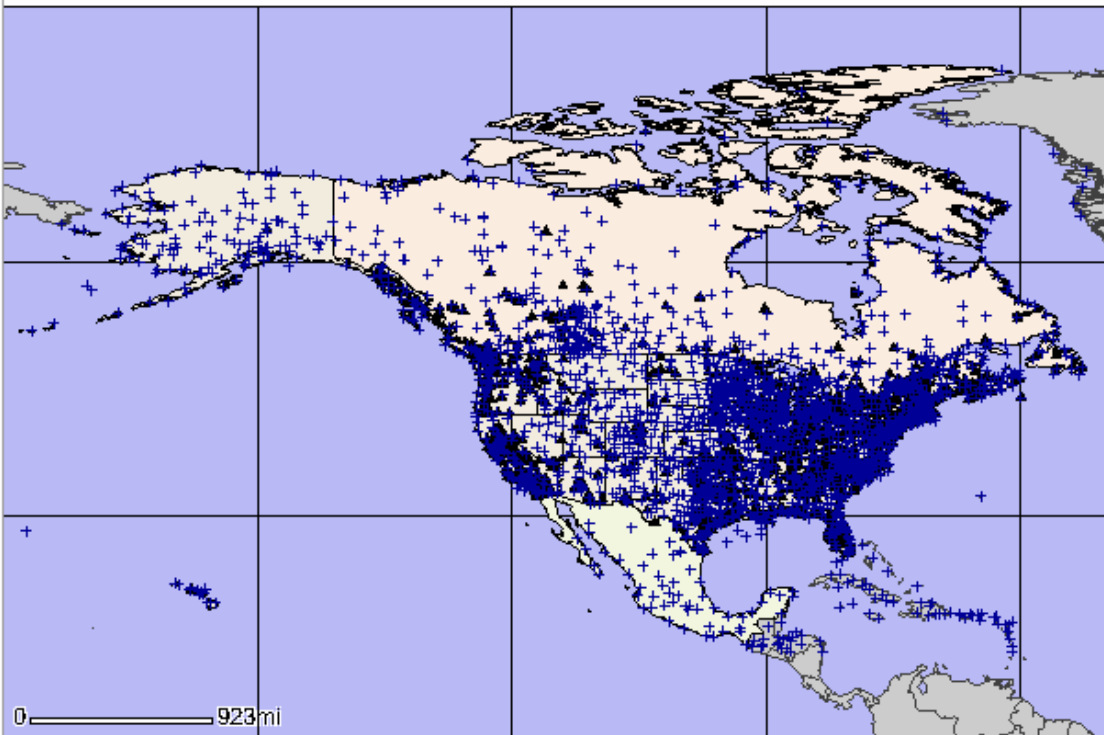
-  Site Map
-  Hourly Data

 Map Size

-  Small
-  Medium
-  Large

 Default Map

-  Set as Default Map
-  Clear Default Map
-  Go to Default Map



0 923mi

Options | Layers | Legend

### Filter Sites

Parameter

Agency

Map Domain

Status

AQS Code

Site Label

[Apply Changes](#)

# Navigator GIS

The screenshot displays the AIRNOW TECH Navigator GIS web application. The interface includes a top navigation bar with links for Home, Agencies, Sites, Navigator, Data, Forecasts, Polling, Notifier, and Resources. A user greeting 'Welcome, Neal Conatser!' and links for 'My Account' and 'Sign Out' are also present.

On the left, a 'Tools' sidebar contains sections for 'Data Mode' (Site Map, Hourly Data), 'Map Size' (Small, Medium, Large), and 'Default Map' (Set as Default Map, Clear Default Map, Go to Default Map). A red arrow points from the 'Site Map' option to a yellow box labeled 'Site locations with optional Site Label'.

The central map shows Southern Nevada with various monitoring sites marked by black triangles and labels: Joe Neal, Lone Mountain, Craig Road KLSV, KVG, J. D. Smith, Palo Verde, Walter Johnson, Sunrise Acres, Paul Meyer, Orr, East Sahara, Green Valley, Southeast Valley, KHND, and Boulder City. A red arrow points from a yellow box labeled 'Air quality monitoring site' to the 'Sunrise Acres' site. Another red arrow points from a yellow box labeled 'NWS site' to the 'KHND' site.

On the right, a 'Filter Sites' panel includes dropdown menus for 'Parameter' (All), 'Agency' (All), 'Map Domain' (All), 'Status' (Active), and 'AQS Code' (All). Below this is a 'Site Label' dropdown menu set to 'Site Name'. An 'Apply Changes' button is located at the bottom right of the filter panel.

A scale bar at the bottom left of the map indicates a distance of 8 miles.

# Navigator GIS

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On the left, a "Tools" panel contains sections for "Data Mode" (Site Map, Hourly Data), "Map Size" (Small, Medium, Large), and "Default Map" (Set as Default Map, Clear Default Map, Go to Default Map). A red arrow points from the "Hourly Data" option to a yellow box labeled "Monitor data with labels".

The central map shows the Las Vegas area with several data points marked by green dots and labeled with numbers: 6, 3, 8, 3, 39, 10, and 15. A red line traces a path through the city. A yellow box labeled "Selected PM2.5 hourly data" has a red arrow pointing to the data point labeled 15.

On the right, a configuration panel includes tabs for "Options", "Layers", and "Legend". The "Options" tab is active, showing "Select Data" with "Air Quality Parameter" set to "PM2.5 (UG/M3)" and "Meteorology Parameter" set to "None". Below this is a "Time Select" section with a date of "7/13/2006" and a time of "15" PST. At the bottom of the panel is an "Advance Hour" section with buttons for "-24", "-8", "-1", "+1", "+8", and "+24". A large "Apply Changes" button is located at the bottom right of the interface.



# Navigator GIS

The screenshot displays the AIRNOW TECH Navigator GIS web application. The interface includes a top navigation bar with links for Home, Agencies, Sites, Navigator, Data, Forecasts, Polling, Notifier, and Resources. A user greeting 'Welcome, Neal Conatser!' and links for 'My Account' and 'Sign Out' are also present. The main map area shows a geographical view of the Las Vegas and Henderson, NV region, with various data points plotted. A yellow callout box with the text 'View up to seven meteorological parameters from both NWS and air quality agencies' points to the 'Select Data' panel on the right. This panel has tabs for 'Options', 'Layers', and 'Legend'. Under the 'Options' tab, there are two dropdown menus: 'Air Quality Parameter' (set to 'PM2.5 (UG/M3)') and 'Meteorology Parameter' (with a list of options including 'None', 'WIND (BARBS)', 'TEMP (C)', 'RHUM (PERCENT)', 'BARPR (MILLIBAR)', 'SRAD (WATTS/M2)', 'PRECIP (MM)', 'DEWPOINT (C)', and 'VISIBILITY (KM)'). An 'Apply Changes' button is located at the bottom of the panel. On the left side, there are 'Tools', 'Tool Options', and 'Site Info' tabs. The 'Tools' tab is active, showing a tree view with folders for 'Data Mode' (containing 'Site Map' and 'Hourly Data'), 'Map Size' (containing 'Small', 'Medium', and 'Large'), and 'Default Map' (containing 'Set as Default Map', 'Clear Default Map', and 'Go to Default Map'). A scale bar at the bottom left indicates a distance of 8 miles.

**Navigator**

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[Home](#) [Agencies](#) [Sites](#) [Navigator](#) [Data](#) [Forecasts](#) [Polling](#) [Notifier](#) [Resources](#)

**Tools** **Tool Options** **Site Info**

**Select Data**

**Air Quality Parameter**  
PM2.5 (UG/M3)


**Meteorology Parameter**  
None  
WIND (BARBS)  
TEMP (C)  
RHUM (PERCENT)  
BARPR (MILLIBAR)  
SRAD (WATTS/M2)  
PRECIP (MM)  
DEWPOINT (C)  
VISIBILITY (KM)

**Apply Changes**

View up to seven meteorological parameters from both NWS and air quality agencies

0 8mi

# Navigator GIS




## Navigator

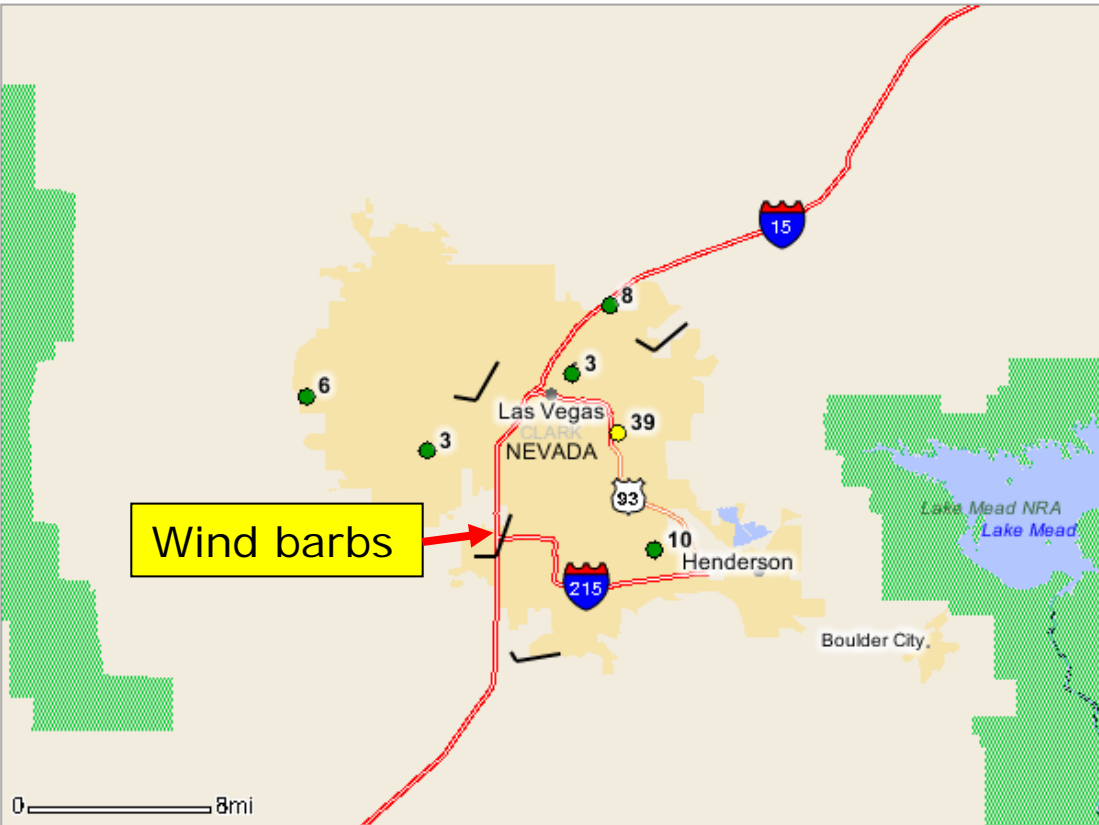
Welcome, Neal Conatser! | [My Account](#) | [Sign Out](#)

[Home](#) [Agencies](#) [Sites](#) [Navigator](#) [Data](#) [Forecasts](#) [Polling](#) [Notifier](#) [Resources](#)

**Tools** | **Tool Options** | **Site Info**



- Data Mode
  - Site Map
  - Hourly Data
- Map Size
  - Small
  - Medium
  - Large
- Default Map
  - Set as Default Map
  - Clear Default Map
  - Go to Default Map



Wind barbs

0 8mi

**Options** | **Layers** | **Legend**

**Select Data**

Air Quality Parameter  
PM2.5 (UG/M3)

Meteorology Parameter  
WIND (BARBS)

**Time Select**

Date 7/13/2006 11:23 AM  
Hour 15 PST

**Advance Hour**

-24 -8 -1 +1 +8 +24

**Apply Changes**



# Navigator GIS

The screenshot displays the Navigator GIS web application interface. The top navigation bar includes the AIRNOW TECH logo and links for Home, Agencies, Sites, Navigator, Data, Forecasts, Polling, Notifier, and Resources. A user welcome message and links for My Account and Sign Out are also present.

**Trajectory Parameters**

Hours: 24hr Forward (dropdown menu)

Heights (m agl):

- 500
- 
- 

Label (Only appears when map scale is less than 22 mi):

- ☐ Hour
- ☐ Height (m agl)
- ☐ Pressure (mb)
- ☒ None

Source: NOAA HYSPLIT model  
NAMNDAS models (40km)  
Most Recent: 13 Jul 2006 12Z  
Model vertical velocity

**Map**

The map shows the Las Vegas area with a red trajectory line. A yellow box with the text "Input trajectory parameters" has an arrow pointing to the "24hr Forward" dropdown menu. Another yellow box with the text "Run backward and forward HYSPLIT trajectories" has an arrow pointing to the "Run" button in the map toolbar.

**Select Data**

Air Quality Parameter: PM2.5 (UG/M3) (dropdown menu)

Meteorology Parameter: WIND (BARBS) (dropdown menu)

**Time Select**

Date: 7/13/2006 (calendar icon)

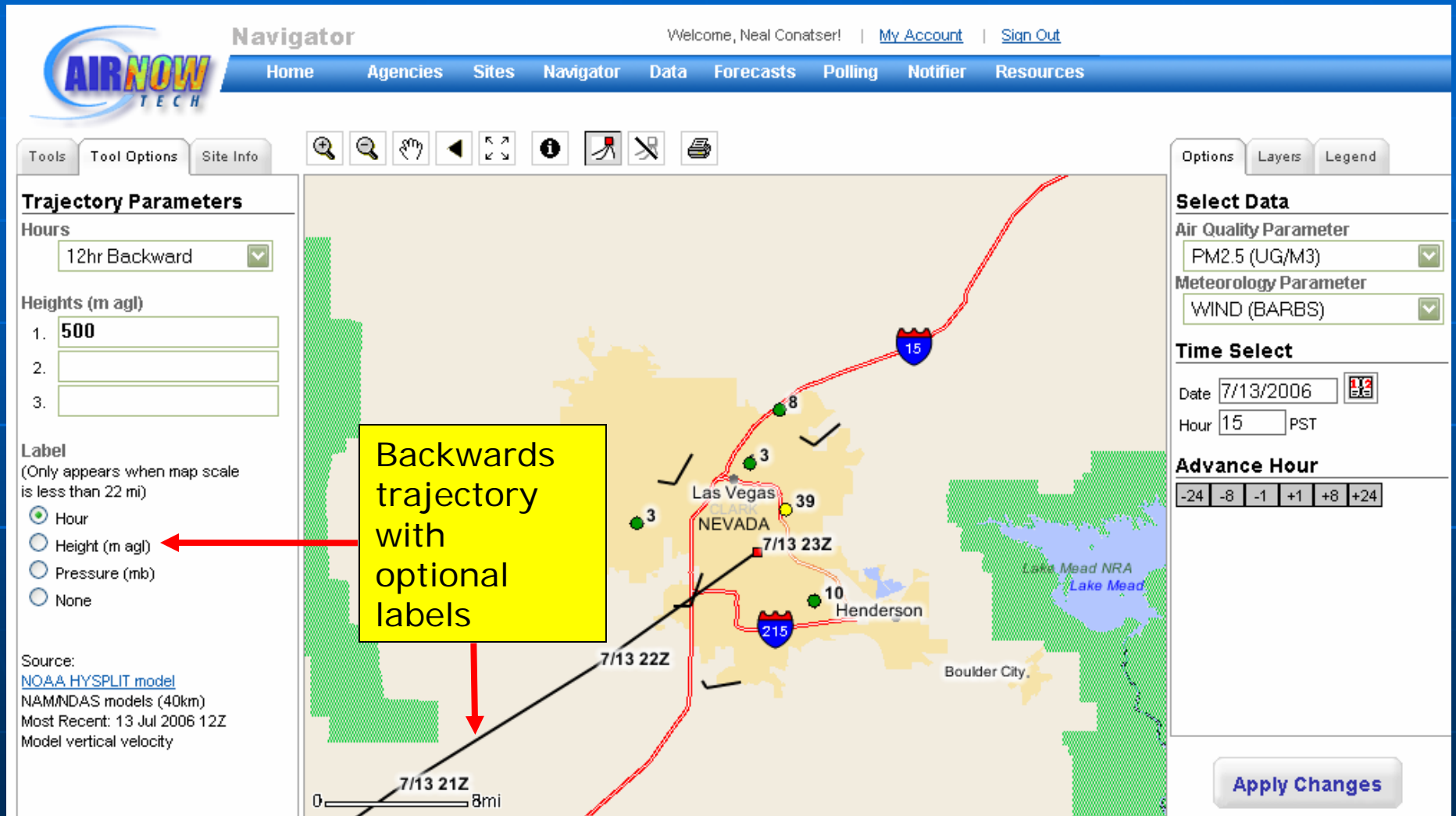
Hour: 15 PST

**Advance Hour**


-24 -8 -1 +1 +8 +24

**Apply Changes**

# Navigator GIS



# Navigator GIS

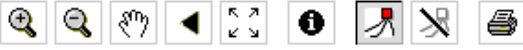


## Navigator

Welcome, Neal Conatser! | [My Account](#) | [Sign Out](#)

[Home](#) [Agencies](#) [Sites](#) [Navigator](#) [Data](#) [Forecasts](#) [Polling](#) [Notifier](#) [Resources](#)

Tools Tool Options Site Info



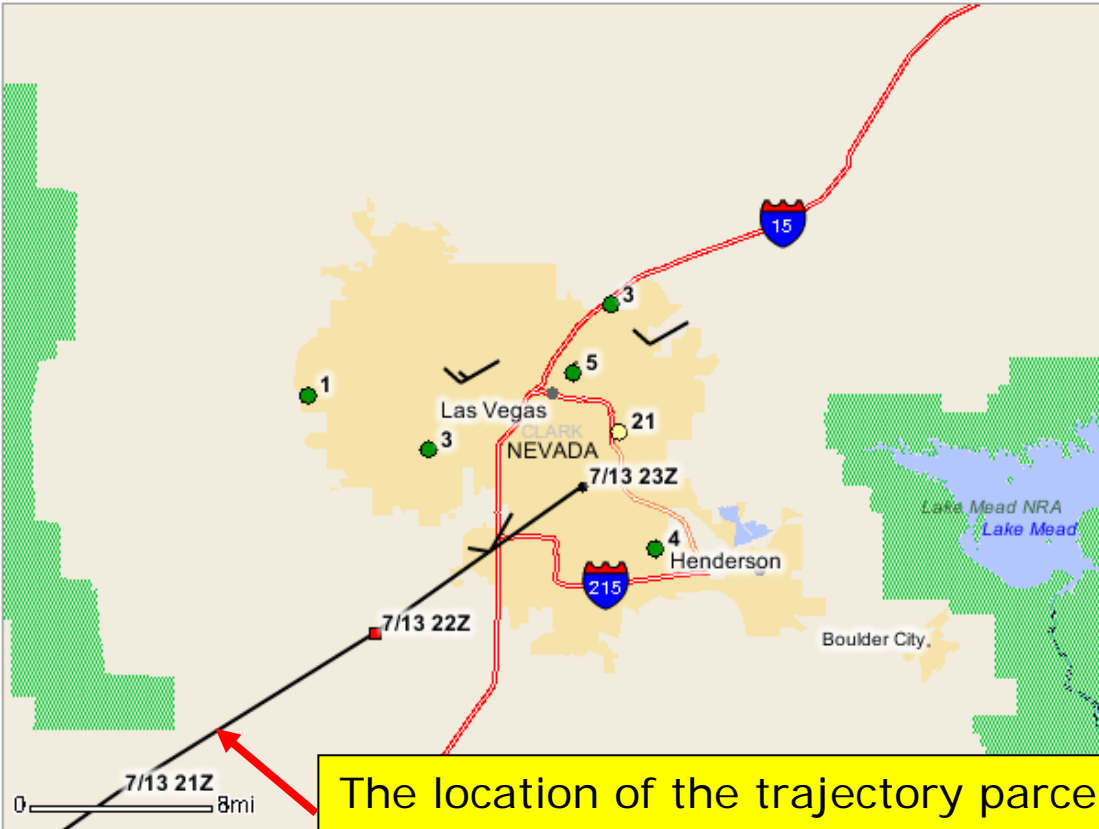
### Trajectory Parameters

Hours  
12hr Backward

Heights (m agl)  
1. 500  
2.  
3.

Label  
(Only appears when map scale is less than 22 mi)  
☒ Hour  
☐ Height (m agl)  
☐ Pressure (mb)  
☐ None

Source:  
[NOAA HYSPLIT model](#)  
NAMNDAS models (40km)  
Most Recent: 13 Jul 2006 12Z  
Model vertical velocity



0 8mi

The location of the trajectory parcel moves with every hour of time

Options Layers Legend

### Select Data

Air Quality Parameter  
PM2.5 (UG/M3)

Meteorology Parameter  
WIND (BARBS)

### Time Select

Date 7/13/2006  
Hour 14 PST

### Advance Hour

-24 -8 -1 +1 +8 +24

Go to a previous hour or day

Apply Changes

# Navigator GIS

**Navigator**

Welcome, Neal Conatser! | [My Account](#) | [Sign Out](#)

Home Agencies Sites Navigator Data Forecasts Polling Notifier Resources

Tools Tool Options Site Info

**Trajectory Parameters**

Hours: 12hr Backward

Heights (m agl):

- 500
- 
- 

Label: (Only appears when map scale is less than 22 mi)

- ☒ Hour
- ☐ Height (m agl)
- ☐ Pressure (mb)
- ☐ None

Source: NOAA HYSPLIT model  
NAMNDAS models (40km)  
Most Recent: 26 Oct 2006 00Z  
Model vertical velocity

0 101mi

Baja California Norte Sonora

Options Layers Legend

**Select Data**

Air Quality Parameter: PM2.5 (UG/M3)

Meteorology Parameter: WIND (BARBS)

**Time Select**

Date: 7/13/2006

Hour: 14 PST

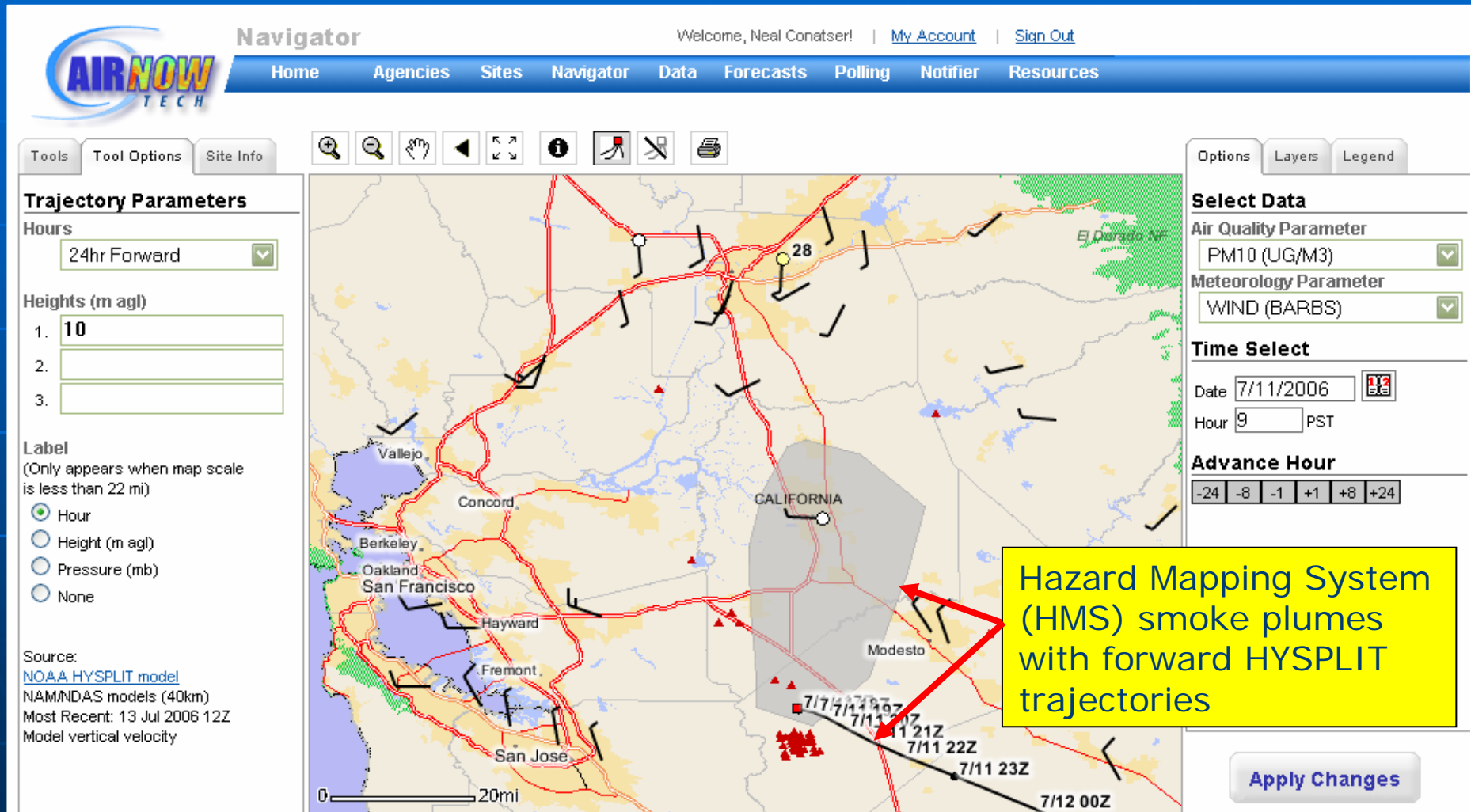
**Advance Hour**

-24 -8 -1 +1 +8 +24

**Apply Changes**

Use the magnifying glass zoom out tool to view a larger scale regional map

# Navigator GIS



# My Account

**Home** Welcome, AIRNow Tech User! | [My Account](#) | [Sign Out](#)

**Home** Agencies Sites Navigator Data Forecasts Polling Notifier Resources

### News and Events

#### 2007 National Air Quality Conference - Call for Speakers and Posters

The 2007 National Air Quality Conference, sponsored by the EPA, the State and Territorial Air Pollution Program Administrators, and the Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), will be held February 11-14 in Orlando, Florida. Please visit the following website for more information on how you can be a part of the conference!

LINK: <http://www.epa.gov/airnow/2007conference/call-speakers2.html>

Posted October 4, 2006, 10:37 (PT)

#### Did you know? Tip 2

How can I tell if a monitor is reporting suspect data?

When an observation (OBS) file is received from an agency, each hourly measurement is compared against a set of QC criteria. These criteria help identify potentially erroneous measurements.

Measurements violating one or more QC criteria are reviewed by an AIRNow operator, after which data is either accepted or invalidated. Invalidated data are marked as error in the AIRNow database and are assigned a value of -99. Measurements are neither used to calculate the AQI nor to produce AIRNow maps or related information. In order to prevent viewing what would otherwise be an indication of real-time air quality.

How can you tell if a monitor has reported data via the Internet?

Sign up for and view the "Agency Daily" email. You can also visit the My Account page in AIRNow-Tech. Go to the My Account page at [airnowdmc@sonomated.com](#).

Posted October 18, 2006, 12:25 (PT)

### My Agency's Forecasts

Issue Date: 10/20/2006

City	Today	Tomorrow	Action Day
Atlanta	PM2.5	PM2.5	

### My Agency's Realtime Observed

	Ozone	PM <sub>2.5</sub>	PM <sub>10</sub>
Yesterday	36	86	47
Max Today	30	74	45
Current	30	21	45

### My Agency's Polling Summary

Agency	Ozone	PM <sub>2.5</sub>	PM <sub>10</sub>
GA1	10/20 16:00	10/20 16:00	10/20 15:00

### Polling Summary

**Color Legend**

Green = Current Yellow = 2 to 6 hrs old

Agency	Ozone	PM <sub>2.5</sub>	PM <sub>10</sub>
AZ1	10/20 16:00	10/20 16:00	10/20 16:00
AZ2	10/20 16:00	10/20 16:00	10/20 16:00

**My Account** Welcome, AIRNow Tech User! | [My Account](#) | [Sign Out](#)

**Home** Agencies Sites Navigator Data Forecasts Polling Notifier Resources

Agencies > [Arkansas Dept. of Environmental Quality](#) > AIRNow Tech User

### Arkansas Dept. of Environmental Quality

First Name: AIRNow Tech Phone: 000-000-0000 Fax: n/a

Last Name: User Address 1: n/a

Email Address: airnowtech.user@gmail.com Address 2: n/a

Login: Your Username City: n/a

Password: jaaaaa State: n/a Zip: n/a

Verify Password: jaaaaa Country: USA

Contacts: Agency ☒ Forecast ☒

Notifications: Agency Daily: ☒ Forecast Daily: ☒  
Agency Hourly: ☒

[Save](#) [Delete](#)

### Home Page Preferences

☒ My Agency's Forecasts  
☒ My Agency's Realtime Observed  
☒ My Agency's Polling Summary

[Save](#)

### Site List Management

[New](#)

Report	Sitelist	Agency	Interval


Total: 11 sites

## Home Page Preferences

- ☒ My Agency's Forecasts
- ☒ My Agency's Realtime Observed
- ☒ My Agency's Polling Summary



# My Account



## My Account

Welcome, AIRNow Tech User! | [My Account](#) | [Sign Out](#)

[Home](#) [Agencies](#) [Sites](#) [Navigator](#) [Data](#) [Forecasts](#) [Polling](#) [Notifier](#) [Resources](#)

[Agencies](#) > [Arkansas Dept. of Environmental Quality](#) > AIRNow Tech User

### Arkansas Dept. of Environmental Quality

First Name:	<input type="text" value="AIRNow Tech"/>	Phone:	<input type="text" value="000-000-0000"/>	Fax:	<input type="text" value="n/a"/>
Last Name:	<input type="text" value="User"/>	Address 1:	<input type="text" value="n/a"/>		
E-mail Address:	<input type="text" value="airnowtech.user@gmail.com"/>	Address 2:	<input type="text" value="n/a"/>		
Login:	<input type="text" value="Your Username"/>	City:	<input type="text" value="n/a"/>		
Password:	<input type="password" value="*****"/>	State:	<input type="text" value="n/a"/>	Zip:	<input type="text" value="n/a"/>
Verify Password:	<input type="password" value="*****"/>	Country:	<input type="text"/>		

### DMC e-mails on/off

Contacts: Agency ☒ Forecast ☒

Notifications: Agency Daily: ☒ Forecast Daily: ☒  
Agency Hourly: ☒

### Home Page Preferences

- ☒ My Agency's Forecasts
- ☒ My Agency's Realtime O
- ☒ My Agency's Polling Sum

### Site List Management

050350005 - MARION

050350006 - Clarkdale

050350007 - Earle

050970001 - ODEN

051010002 - DEER

051130003 - EAQLEMT

051190007 - PARR

051191002 - NLRAP

051191005 - ADEQ-45

051390006 - El Dorado

051430004 - FAYETTEVILLE

Total: 11 sites

### Email Report Management

Report Name:

Site List:

Query:

Time Interval:

# My Account



## My Account

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[Agencies](#) > [Arkansas Dept. of Environmental Quality](#) > AIRNow Tech User

**Arkansas Dept. of Environmental Quality**

First Name: AIRNow Tech Phone: 800-800-0000 Fax: n/a  
Last Name: User Address:  
E-mail Address: airnowtech.user@gmail.com  
Login: Your Username  
Password:   
Verify Password:   
  
**Home Page Preferences**  
☒ My   
☒ My   
☒ My   
  
**Site List Management**  
Arkansas - All  
   
  
050350005 - MARION  
050350006 - Clarkdale  
050350007 - Earle  
050970001 - ODEN  
051010002 - DEER  
051130003 - EAGLEMT  
051190007 - PARR  
051191002 - NLRAP  
051191005 - ADEQ-45  
051390006 - El Dorado  
051430004 - FAYETTEVILLE  
  
Total: 11 sites

## Site List Management


Arkansas - All

050350005 - MARION  
050350006 - Clarkdale  
050350007 - Earle  
050970001 - ODEN  
051010002 - DEER  
051130003 - EAGLEMT  
051190007 - PARR  
051191002 - NLRAP  
051191005 - ADEQ-45  
051390006 - El Dorado  
051430004 - FAYETTEVILLE

Total: 11 sites



# My Account



**My Account**

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[Home](#) | [Agencies](#) | [Sites](#) | [Navigator](#) | [Data](#) | [Forecasts](#) | [Polling](#) | [Notifier](#) | [Resources](#)

[Agencies](#) > [Arkansas Dept. of Environmental Quality](#) > AIRNow Tech User

**Arkansas Dept. of Environmental Quality**

First Name:

Last Name:

E-mail Address:

Login:

Password:

Verify Password:

Phone:  Fax:

Address 1:

Address 2:

City:

State:  Zip:

Country:

Contact:

**Email Report Management**

Report Name:

Site List:

Query:

Time Interval:

**Report Management**

Select a Report

Select a Sitelist

Select a query

Time Interval:

050970001 - ODEH

051010002 - DEER

051190003 - EAGLEMT

051190007 - PARR

051191002 - NLRAP

051191005 - ADEQ-45

051390006 - El Dorado

051430004 - FAYETTEVILLE

Total: 11 sites

# Resources

- View the AIRNow-Tech Resources page:
  - Tutorial videos
  - Manuals / Instructions
  - Data formats and processing
  - Links and other useful information



# Request an Account - Contacts

## www.airnowtech.org

The screenshot shows the AIRNow-Tech website. The top navigation bar includes links for Home, Agencies, Sites, Navigator, and Data. The main content area has a login section with fields for Username and Password, a Log In button, and a link for 'Forgot your password?'. A red circle highlights the link 'Request an AIRNow-Tech Account', with an arrow pointing to a detailed account request form on the right. The form is titled 'Request an AIRNow-Tech Account' and contains the following fields: First Name\*, Last Name\*, Login Name\*, E-mail Address\*, Phone\*, and Comment. Below these is a dropdown menu for Agency\* with the text '(Select Agency)' and a 'Send Request' button. A legend at the bottom indicates that '\*' denotes required fields.

**Request an AIRNow-Tech Account**

First Name\*  
Last Name\*  
Login Name\*  
E-mail Address\*  
Phone\*  
Comment

Agency\* (Select Agency) ▼

Send Request

\*Required

**Phil Dickerson**

dickerson.phil@epa.gov

909.541.4814

**Alan Chan, Neal Conatser, Tim Dye**

airnowdmc@sonomatech.com

707.665.9900